IN THE CLAIMS:

1. (Currently amended) A probe for analyzing protein-protein interaction between two proteins, ~~wherein protein splicing is induced by protein-protein interaction, thereby regenerating a physiochemically or biochemically detectable protein~~ wherein the probe consists of:

probe a, which comprises a N-terminal polypeptide of an intein and a N-terminal polypeptide of a labeled protein; and

probe b, which comprises a C-terminal polypeptide of an intein and a C-terminal polypeptide of a labeled protein,

wherein the N-terminal polypeptide of the intein is selected from the group consisting of a N-terminal splicing domain (1-184 amino acids) of Sce VMA intein and a N-terminal Ssp DnaE intein, and the C-terminal polypeptide of the intein is selected from the group consisting of a C-terminal splicing domain (389-454 amino acids) of Sce VMA intein and a C-terminal Ssp DnaE intein.

2. (Canceled)

3. (Currently amended) The probe for protein-protein interaction analysis of claim ~~2~~ 1, wherein the C-terminal of probe a and the N-terminal of probe b each contain a linker sequence.

4-5. (Canceled)

6. (Currently amended) The probe for protein-protein interaction analysis of claim ~~2~~ 1, wherein the labeled protein is a fluorescent protein.

7. (Original) The probe for protein-protein interaction analysis of claim 6, wherein the fluorescent protein is a green fluorescent protein.

8. (Currently amended) The probe for protein-protein interaction analysis of claim ~~2~~ 1, wherein the labeled protein is a luminescent enzyme.

9. (Original) The probe for protein-protein interaction analysis of claim 8, wherein the luminescent enzyme is a luciferase.

10. (Currently amended) A method for analyzing protein-protein interaction [,] comprising:

~~making a~~ the ~~protein linked with probe a as described in claim 2 and a protein linked with probe b as described in claim 2 coexist in a system;~~

contacting the probe of claim 1 with proteins for which protein-protein interaction is to be analzyed, such that probe a is linked to a protein and probe b is linked to a protein and the proteins linked to probe a and probe b coexist in a system; and

~~detecting the signal emitted by the labeled protein~~ measuring a change in fluorescence intensity resulting from protein-protein interaction between the proteins linked to probe a and probe b.

11. (Currently amended) The method for analyzing protein-protein interaction of claim 10, wherein a polynucleotide which expresses the protein linked with probe a and the protein linked with probe b is introduced into a eucaryotic cell~~, the polynucleotide expressing the protein linked with probe a and the protein link with probe b, thereby making~~ such that the protein linked with probe a and the protein linked with probe b coexist in the cell.